

ABSTRACT

Multi-user detection (MUD) performance is optimized to eliminate redundant use of power during processing. An overbuilt A-matrix, i.e., a system response matrix, is provided. The overbuilt A-matrix uses all possible codes, e.g., all codes identified in a candidate code list (CCL) provided by blind code detection (BCD). The overbuilt A-matrix is passed to the MUD which extracts only those rows or columns required for codes that have actually been received, thus eliminating the need to recompute whitening matched filter (WMF) outputs that do not correspond to the actually received code.